Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter:	)	
	)	
Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies	)	ET Docket No. 92-9

COMMENTS
OF THE
UNITED STATES TELEPHONE ASSOCIATION

The United States Telephone Association (USTA) respectfully submits its comments in the above-referenced docket. USTA is the principal trade association of the exchange carrier industry. Its membership of approximately 1100 telephone companies provides over 98 percent of the telephone company-provided access lines in the U.S.

I. INTRODUCTION.

USTA supports the Commission's efforts to make spectrum available for the development and deployment of new services and technologies. Some exchange carriers are experimenting with personal communications services (PCS) and have been permitted by the Commission to conduct PCS trials in different parts of the country. Participation by exchange carriers in offering new wireless communications services will support the development of cost-effective, high-quality telecommunications and will serve to maintain universal service objectives. Additional spectrum is

required for the provision of such services.

The Commission is proposing to utilize 220 MHz of the spectrum between 1.85 and 2.20 GHz for emerging telecommunications technologies. It also is recommending a regulatory framework which would enable existing users in this band to relocate to other bands or to alternative media during an extended transition period. USTA's comments on the Commission's proposal follow.

II. SPECTRUM SELECTION.

A. Amount of Spectrum.

USTA agrees with the factors used by the Commission in identifying spectrum for emerging technologies. Perhaps the most important consideration involves the amount of spectrum to be allocated. The Commission rightfully acknowledges that current proposals for additional spectrum may not meet the needs of many of the proposed new services.[1] The number of providers licensed by the Commission to provide any new service will affect a determination of whether the amount of spectrum is adequate. As USTA has suggested previously, a minimum of 60 Mhz would be sufficient bandwidth to initiate PCS by a single provider or multiple providers sharing a single pool of frequencies. If PCS was to be provided by competitive, multiple providers, each exclusively using a block of spectrum, the overall allocation

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[1] NPRM at footnote 11.

would have to be increased so that the intended equivalent capacity is maintained.

While the Commission only considered non-government spectrum in order to speed the process of transition,[2] the Commission must continue to work with the National Telecommunications Information Administration and Congress to identify and allocate frequencies in the bands currently assigned to the government either for use by emerging technologies or to relocate current users in the 2 GHz band.[3] Access to adjacent government bands is imperative to accommodate future growth in the demand for wireless services.

B. Cost of Equipment.

Likewise, taking into account the cost of equipment which would be required to provide new services in a particular range of spectrum is an important consideration. By identifying a proposed range of spectrum early, manufacturers and industry standards-setting bodies can begin work on the equipment and standards necessary to provide new wireless services.

C. Feasibility of Relocation.

Regardless of where an allocation for emerging technologies

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[2] NPRM at paragraph 10.

[3] See, Letter from Federal Communications Commission to Honorable Ernest F. Hollings, April 20, 1992 at p.2.

is identified and regardless of whether or not methods of spectrum sharing may be possible, some relocation of current spectrum users is inevitable. The Commission should continue to encourage service providers to explore greater opportunities for spectrum sharing. To maximize the fairness of allocating this limited, and valuable public resource, new point-to-point service providers should be required, through a licensing or application process, to demonstrate that spectrum in the 2 GHz band is required for provision of the new service. All current users, including public safety providers, should also be required to demonstrate their continued need to utilize frequencies in the 2 GHz band and to maintain their primary status beyond the ten year transition period. While the provision of public safety services must be maintained, the Commission should not presume that such users cannot relocate to another band or utilize spectrum in a more efficient manner, as for example, through sharing.

Any current service providers who relocate to alternative microwave bands should be fully compensated by the new users who expect to benefit from the relocation. This means that incumbents who relocate should be made whole. The costs of relocation should include, but not be limited to, the following: equipment, engineering, training, licensing, frequency coordination, test equipment and tower alterations. Because of the differences in the equipment characteristics between the 2

GHz and other common carrier bands, relocation costs could exceed the investment in the current system. The Commission correctly observes that its proposal should not result in a financial windfall for incumbents.

The Commission should be aware that many telephone companies serving rural areas operate 2 GHz facilities. Such facilities are necessary to provide reasonably-priced telephone services in remote, sparsely-populated areas. The smaller telephone companies may not have the resources available to replace equipment if forced to relocate to another band and their customers may not be able to afford higher prices which may result if an alternate media is required. The maintenance of reasonably-priced, high-quality telecommunications in rural America should not be sacrificed. Such providers should have the same opportunity as public safety users to maintain their current status if no reasonable alternatives can be implemented, particularly if customers will be adversely affected.

Those point-to-point microwave operators that must use 2 GHz spectrum should be aggregated in a specified segment of spectrum, over time, to make the maximum amount of bandwidth available for wireless services. This could facilitate the engineering for emerging services and provide greater opportunities for spectrum efficiency. The cost of this aggregation should also be borne by emerging service providers. Access to the government spectrum in

the 1710 to 1850 MHz band would increase the amount of spectrum available to accommodate either current or emerging services.

D. International Considerations.

This factor deserves some consideration, although it should not delay the development and deployment of emerging services in the U.S.

III. RELOCATION OF FIXED MICROWAVE OPERATIONS TO BANDS ABOVE 3 GHz.

Relocation of fixed microwave operations to bands above 3 GHz should facilitate spectrum efficiency. Existing technical considerations and coordinating procedures should guide the Commission in relocating current fixed microwave operations in bands above 3 GHz. It is unclear in the NPRM whether the current separation between common carriage and private carriage will be maintained. Because the technical specifications are different, the Commission can avoid complexity and inevitable delay if the current separation between private and common carrier use is retained in the upper bands.

In those instances where it is technically feasible to relocate current users in the 2 GHz band to higher microwave bands, the Commission should determine if a loading waiver is necessary due to the difference in bandwidths. The Commission should also consider whether a loading waiver would be required if an incumbent 2 GHz user voluntarily relocates to a higher band

because, for example, the user replaces its current facilities with a new system designed for a higher bandwidth.

To determine where to relocate current 2 GHz band users, the Commission should focus on spectrum efficiency. The Commission should not relax its existing specifications regarding minimum path links. As proposed in the NPRM, providers with path links of less than 10 miles should be encouraged to relocate to bandwidths higher than 10 GHz.[4] This will avoid congestion in the 4 to 6 GHz bands and leave those bands open for more appropriate longer path links.

The Commission should also make narrow-band channels available in the higher bands. By re-channelizing the higher bands for narrow-band applications, the Commission can make relocation more economical and spectrum efficient. Expediting type acceptance of equipment will provide an incentive for manufacturers of equipment to facilitate this process.

While fixed microwave operators should be encouraged to consider other non-radio alternatives to meet their needs, particularly fiber optics,[5] the Commission should not presume that non-radio alternatives are always available. In some instances, geography and economical considerations make the use

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[4] NPRM at paragraph 20.

[5] NPRM at footnote 17.

of microwave facilities more practical.[6] The Commission should continue to permit telephone companies to utilize the facilities which can provide the most reliable and economical service to their customers.

IV. TRANSITION PLAN.

The transition plan proposed by the Commission must be flexible enough to accommodate service providers without a feasible alternative to use of the 2 GHz band. Likewise, service providers who may have to continue to be primary users, even after the 10 to 15 year transition period, should be accommodated.

New and emerging service providers should be encouraged to develop dynamic measurement-based methods which can determine spectrum availability on an instantaneous basis. This will allow these providers to gauge possible interference to facilitate spectrum sharing during the transition period. Ongoing evaluation would expedite development and deployment of new services.

The Commission should also allow some flexibility in the transition period to ensure that sufficient time is provided to ensure the equipment is able to be operated for the full extent

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[6] There may also be environmental considerations which affect the selection of facilities.

of its useful life. In most instances ten years may be sufficient, although there may be cases where a longer period is required.

V. SPECTRUM INTERFERENCE PROTECTION.

The Commission should clarify that interference protection is not being transferred from an incumbent point-to-point user to an emerging service provider when the incumbent receives compensation to relocate. Interference protection should not be transferable; it should be conveyed only by the technical parameters established in the rules for the emerging service.

Commission procedures to assign and license spectrum and the negotiations necessary to relocate incumbent users should be separate processes.

VI. USE OF THE EMERGING TECHNOLOGIES BAND.

The Commission should seek to license frequencies in the 2 GHz band for use by new services which will benefit the public interest. PCS, for instance, should be intended for use by a large portion of the general public. Therefore, at a minimum, new services requiring spectrum in the 2 GHz band should be widely deployed, affordable, high quality, capable of implementation within a reasonable time frame and spectrum efficient.

VII. CONCLUSION.

The Commission should continue to seek every opportunity to identify bands currently allocated for government usage to accommodate future growth in the demand for wireless services. The spectrum identified in this proceeding may provide an opportunity to relieve this demand. The relocation and compensation of incumbent users should be provided for as specified in these comments.

Respectfully submitted,

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